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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR   | ATTORNEY DOCKET NO.       | CONFIRMATION NO. |
|--|-------------|------------------------|---------------------------|------------------|
| 10/705,585   | 11/10/2003  | William Henry Bernhart | 18093 (AT 20958-1032)     | 4280             |
| 7590 07/14/2004  |             |                        |                           |                  |
| Michael J. Aronoff<br>Tyco Electronics Corporation<br>Suite 140<br>4550 New Linden Hill Road<br>Wilmington, DE 19808 |             |                        | EXAMINER<br>GUSHI, ROSS N |                  |
|  |             |                        | ART UNIT<br>2833          | PAPER NUMBER     |

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/705,585

Applicant(s)

BERNHART ET AL.

Examiner

Ross N. Gushi

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2833

Am

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-6, 8-10, 12 and 14-19 is/are rejected.
- 7) ☒ Claim(s) 7, 11 and 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/1/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

~~A person shall be entitled to a patent unless —~~

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in —

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a);

Claims 1-5, 8-10, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Korsunsky.

Regarding claim 1, Korsunsky discloses an electrical connector assembly comprising: a receptacle; a first ground plane 170 partitioning the receptacle; a plug configured to mate with said receptacle; and a second ground plane 70 partitioning said plug; wherein each of said first and second ground planes are in mechanical and electrical contact with one another when said plug is mated to said receptacle.

Per claim 2, said first ground plane partitions said receptacle into two substantially equal halves.

Per claim 3, said second plane partitions said plug into two substantially equal halves.

Per claim 4, said first ground plane and said second ground plane are inverted relative to one another.

Per claim 5, said first and second ground planes comprise hermaphroditic surfaces.

Per claims 8 and 9 each of said first and second ground planes comprise a ribbed surface (for example, see ribs 300, 302, 316), said ribbed surfaces of each of said first and second ground planes mechanically and electrically engaging each other when said plug is mated to said receptacle.

Per claim 10, each of said planes are configured for connection to a circuit board.

Per claim 19, the planes are configured for wiping.

Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Wu et al. ("Wu").

Regarding claim 1, Wu discloses an electrical connector assembly comprising: a receptacle; a first ground plane 16 partitioning the receptacle; a plug configured to mate with said receptacle; and a second ground plane 58 partitioning said plug; wherein each of said first and second ground planes are in mechanical and electrical contact with one another when said plug is mated to said receptacle.

Per claim 6, Wu discloses a conductive shell (19, 84) surrounding at least one of said plug and said receptacle, wherein at least one of said first and second ground planes is electrically connected to said shell.

Claims 12, 14, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Yatsu et al. ("Yatsu").

Per claim 12, Yatsu discloses a receptacle 35 comprising a first shell 39, a receptacle insert 36 received in said first shell, and a first ground plane 37 extending through a center of said receptacle insert, said first ground plane configured for connection to a circuit board on one end and having a plug engagement surface; and a plug 30 comprising a second shell 34, a plug insert 31 received in said second shell, and a second ground plane 32 extending through a center of said plug, said second ground plane configured for connection to a circuit board on one end and having a receptacle engagement surface; wherein said plug is configured to mate with said receptacle, thereby mechanically and electrically engaging said plug engagement surface to said receptacle engagement surface.

Per claims 14 and 15, each of said first and second planes is electrically and mechanically connected to the shells.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yatsu as in claims 12, 14, and 15 in view of Korunsky as in claims 1-5 and 8-10.

Yatsu does not hermaphroditic surfaces. Korunsky uses Hermaphroditic surfaces on the ground planes (see figures 3-4). At the time of the invention, it would have been obvious to replace the Yatsu ground planes (37, 32) with the Korunsky

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ground planes (70, 170). The suggestion or motivation for doing so would have been to reduce the cross-sectional area of the ground planes as taught in Korunsky (see abstract, col. 1, lines 25-40).

Claims 17 and 18 are rejected for the reasons pertaining to claims 1-5, 8-10, 12, 14, and 15.

***Allowable Subject Matter***

Claims 7, 11, and 13 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 7, the prior art does not suggest the assembly as claimed, including the combination of all the claimed elements, the combination including that said first and second ground planes each comprise a slot therein, said slots of said ground planes fitted into a respective slot in each of said plug and said receptacle, thereby electrically connecting each of said first and second ground planes to a respective one of said shells.

Regarding claim 11, the prior art does not suggest the assembly as claimed, including the combination of all the claimed elements, the combination including that each of said plug and receptacle comprises a conductive shell and said first and second ground plane comprises a hook, said hooks of said first and second ground planes received over an edge of said shell to establish electrical connection thereto.

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Regarding claim 13, the prior art does not suggest the assembly as claimed, including the combination of all the claimed elements, the combination including the ribs and grooves as claimed

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ross Gushi whose telephone number is (571) 272-2005. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Paula A. Bradley, can be reached at 571-272-2800 extension 33. The phone number for the Group's facsimile is (703) 872-9306.

**ROSS GUSHI  
PRIMARY EXAMINER**

